| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/849,605 | 11/20/2000 | Vladimir Matena | 06502.0018-01 | 7197 |

| | | | EXAMINER |
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| 22852 | 7590 | 07/12/2005 | PICH, PONNOREAY |

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| ART UNIT | PAPER NUMBER |
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| 2135 | |

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on _09 May 2005_.

2a)☒ This action is **FINAL**.      2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) _1-26_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-26_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some *  c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
   application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

Claims 1-26 have been examined and are pending.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### *Response to Arguments*

Applicant's arguments filed 5/9/2005 have been considered. Please see below for any new rejections made in light of applicant's amendments.

Applicant's first remark is directed towards the Rule 105 requirements. The examiner notes that there is indeed a stamped receipt indicating that applicant did submit the required document. The examiner still does not see the document anywhere among the submitted document and assumes the previous examiner had it. However, as the applicant has complied with the requirement, the examiner will not require the applicant to submit another copy.

In regards to the previous office action's 112, second paragraph rejection, the examiner withdraws the rejections based on applicant's amendments and further clarification.

Applicant's arguments regarding the 101 rejections of claims 24-26 have been considered, but the examiner respectfully disagrees with the applicant's arguments. Note that claim 24 recited, "a computer data signal embodied in a carrier wave and representing sequences of instructions which, when executed by a remote computer...." Clearly, the claim is directed towards the computer data signal itself, which is described as representing sequences of instructions which can be executed by a computer. This

reads on the signal being nothing more than software, which is not statutory. Just

because the instructions can be executed by a computer does not necessarily include

the computer as part of the limitation. Claims 25 and 26 merely further defines the

software computer data signal recited in claim 24. Further, the software signal is

embodied on a carrier wave, which is not tangible, therefore also not statutory.

Applicant's argues for claim 1 that neither Vaughan nor Frey teaches, "storing at

the peripheral device **a first unique value representing a first configuration of the**

**multinode system**." The examiner respectfully disagrees. The first unique value is a

broad term and either the password generated by the computer 50 or the value of the

real time clock (Fig 2, item 84) can be considered the first unique value. To be able to

generate a matching password, the second clock of a remote device (Fig 1, item 30)

must be synchronized closely to the clock 84; therefore the value of clock 84 represents

a configuration of lock computer 50. The password generated based off clock 84 can

also be considered a first unique value as it reflects the state of the real time clock when

the password was generated. The password must be stored at least temporarily for a

comparison to be made with the password generated by the remote device seen in Fig

1 (col 4, lines 22-27). The multinode system disclosed by Frey (col 7, line 49-col 8, line

10) is used to show that it would have been obvious for Vaughan's system to be a

multinode system.

Applicant also argues for claim 1 that neither Vaughan nor Frey teaches,

"sending an access request from a processor-based node to a shared device, the

request including **a second unique value representing a second configuration of**

**the multinode system.**" The examiner disagrees. A second unique value is also a

broad term. The password generated by the remote device seen in Fig 1 is based off

clock 30. Clock 30 is synchronized with clock 84, which as discussed above,

represents the configuration of peripheral device 50, therefore the password generated

by the device seen in Fig 1 represents a second configuration of the system. This

password must be sent to the shared device (Fig 2, item 50) so that a comparison can

be made to determine whether or not to allow access. Again, Frey was used to show

that it would have been obvious for the system of Vaughan to be a multinode system.

Applicant argues for claim 7 that Vaughan and Frey (individually) do not teach, "a

configuration value module configured to **generate a unique value based upon a new**

**membership list and to store the unique value locally at each node on a**

**multinode system.**" In response to applicant's arguments against the references

individually, one cannot show nonobviousness by attacking references individually

where the rejections are based on combinations of references. See *In re Keller*, 642

F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231

USPQ 375 (Fed. Cir. 1986).

Applicant's arguments for claims 14 and 17 are substantially similar to the ones

for claims 1 and 7 respectively. The examiner disagrees for the same reasons given in

claim 1 and 7. The rest of applicant's arguments were directed towards the dependent

claim being allowable based on dependency on independent claims 1, 7, 14, and 17.

As the examiner have addressed the independent claim arguments and have shown

that they are not in a condition for allowance, the dependent claims are also not in a

condition for allowance.

### Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 24-26 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter. Claims 24-26 refer to "a computer data signal"

which reads on software alone. Software by itself is non-statutory.

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 7-8, and 10-23 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Vaughan (U.S. 4,800,590) in view of Frey et al (U.S. 5,416,921).

**Claim 1:**

Vaughan discloses a method for preventing access to a peripheral device by a

processor-based node in a system comprising,

(1) storing at the peripheral device a first unique value representing a first

configuration of the system (col 3, lines 44-55);

(2) sending an access request from a processor-based node to the device, the

request including a second unique value representing a second configuration of the

system (col 3, lines 44-54);

(3) determining whether said first and second values are identical (col 3, lines 44-

54);

(4) if the first and second values are identical, then executing the access request

to the peripheral device (col 6, lines 55-65); and

repeating steps (3) and (4) each time an access request is sent from the

processor-based node to the device (col 4, lines 27-39).

Vaughan does not disclose the peripheral device being a shared peripheral

device nor the system being a multinode system. The examiner has applied the

broadest reasonable interpretation to this claim and has interpreted peripheral device to

also include shared computers and servers. In light of this interpretation, the examiner

would like to note that password authentication systems in which a request to access a

server and determination of whether or not to permit access to the server by comparing

the password sent with the access request with one stored in the server to see if the

passwords were the same were well known in the art at the time the applicant's

invention was made. Systems that are processor-based multinode systems with shared

servers requiring password to access were also well known at the time the applicant's

invention was made. Frey also discloses a shared peripheral device being used in a

multinode system (col 7, line 49-col 8, line10). It would have been obvious to one of

ordinary skill to combine Vaughan and Frey's teachings according to the limitations

recited in claim 1. One of ordinary skill in the art would be motivated to combine the

teachings of Vaughan and Frey as it would allow for a system such as the one disclosed

by Frey to be more secure (Vaughan col 4, lines 28-39).

**Claim 2:**

Vaughan and Frey disclose all the limitations of claim 1. In addition, Vaughan

discloses a method wherein:

a.  Said first value is generated utilizing at least in part information relating to a first

time when the multinode system was in said first configuration (col 3, lines 44-54

and col 6, lines 33-44).

b.  Said second value is generated utilizing at least in part information relating to a

second time when the multinode system was in second configuration (col 3, lines

44-54 and col 6, lines 33-44).

**Claim 3:**

Vaughan and Frey disclose all the limitations of claim 2. In addition, Vaughan

discloses determining whether said first and second times are identical (col 3, line 66-

col 4, line 44).

**Claims 7 and 17:**

Vaughan discloses an apparatus of claim 7 and a computer usable medium

having computer readable code embodied therein as of claim 17 for preventing access

to at least one peripheral resource by a processor-based node in a system, a resource

being coupled to a system by a resource controller including a controller memory, the

node on the system including a processor coupled to a node memory storing program

modules configured to executing functions of the invention (col 5, lines 24-61), the

apparatus and computer usable medium comprising:

   a. A configuration value module configured to generate a unique value and to store

      said unique value locally at the node on the system (col 3, lines 44-54).

   b. An access control module stored at said controller memory configured to block

      access requests by requesting node to said resource when the locally stored

      unique value at said requesting node does not equal the unique value stored at

      said resource controller (col 9, line 65-col 10, line 5).

      Vaughan does not disclose the peripheral resource being a shared resource nor

the system being a multinode system with a plurality of nodes. Vaughan also does not

disclose:

   a. A membership monitor module configured to determine a membership list of the

      nodes, including said resource, on the system at predetermined times, including

      at least a time when the membership of the system changes.

   b. A resource manager module configured to determine when the resource is in a

      failed state and for communicating a failure of the resource to said membership

      monitor to indicate to the membership monitor to generate a new membership

      list.

   c. A configuration value module generating a unique value based upon said new

      membership list.

      However, Frey discloses a peripheral resource being a shared resource and a

multinode system with a plurality of nodes (col 7, line 49-col 8, line10). Further, Frey

discloses a membership monitor module configured to determine a membership list of the nodes, including said shared resource on the multinode system at predetermined times, including at least a time when the membership of the system changes (col 7, line 55-col 8, line 34). Frey also discloses a resource manager module configured to determine when the shared resource is in a failed state and for communicating failure of the shared resource to said membership monitor module to indicate to the membership monitor module to generate a new membership list (col 8, lines 10-62 and col 23, line 37-col 24, line 26) and a configuration value module generating a unique value based upon said new membership list (col 23, line 37-col 24, line 26). It would have been obvious to one of ordinary skill to combine Vaughan and Frey's teachings according to the limitations recited in claims 7 and 17. One of ordinary skill in the art at the time the applicant's invention was made would be motivated to combine Vaughan and Frey's teachings for the same reason as in claim 1.

Note that all the modules mentioned in the applicant's invention could be one module performing all the mentioned tasks, separate software modules, or the operating system itself. Software modules using an object-oriented approach were also well known in the art at the time of the applicant's invention. The modules themselves could be composed of sub-modules.

**Claim 8:**

Vaughan and Frey disclose all the limitations of claim 7. Vaughan does not disclose a configuration value module configured to determine said unique value based at least in part upon a time stamp indicating the time at which the corresponding

membership list was generated. However, Frey discloses the configuration value

monitor configured to determine said unique value based at least in part upon a time

stamp indicating the time at which the corresponding membership list was generated

(col 12, last paragraph and col 20, line 60-col 21, line 15). One of ordinary skill would

be motivated to combine the teachings of Vaughan and Frey for the same reasons as

claim 1.

**Claims 10 and 19:**

Vaughan and Frey disclose all the limitations of claims 7 and 19. Vaughan does

not disclose the membership monitor configured to execute independently of any action

by said shared resource when said shared resource is in a failed state. However, Frey

discloses the membership monitor configured to execute independently of any action by

said shared resource when said shared resource is in a failed state (col 7, line 55-col 8,

line 34). One of ordinary skill would be motivated to combine the teachings of Vaughan

and Frey for the same reasons as claim 1.

**Claims 11 and 20:**

Vaughan and Frey disclose all the limitations of claims 7 and 19. Vaughan does

not disclose, but Frey discloses the resource manager module configured to execute

independently of any action by said shared resource when said shared resource is in a

failed state (col 8, lines 35-62). One of ordinary skill would be motivated to combine the

teachings of Vaughan and Frey for the same reasons as claim 1.

**Claims 12, 18, and 21:**

Vaughan and Frey disclose all the limitations of claims 7 and 19. Vaughan does not disclose, but Frey discloses the configuration value module is configured to execute independently of any action by said shared resource when said resource is in a failed state (col 12, last paragraph and col 20, line 60-col 21, line 15). One of ordinary skill would be motivated to combine the teachings of Vaughan and Frey for the same reasons as claim 1.

**Claims 13 and 22:**

Vaughan and Frey disclose all the limitations of claims 7 and 19. Vaughan does not disclose, but Frey discloses the access control module configured to execute independently of any action by said shared resource when said shared resource is in a failed state (col 7, lines 55-65).

**Claim 14:**

Vaughan discloses a computer usable medium having computer readable code embodied therein for preventing access to a peripheral device by a processor-based node system, the computer usable medium comprising:

    a. A storage module configured to store a first unique value representing a first configuration of the multinode system (col 3, lines 44-55).

    b. A reception module configured to receive access requests from a node to the shared peripheral device, each access request including a second unique value representing a second configuration of the multinode system (col 3, lines 44-54).

      c. A comparator module configured to determine, for each access request received, whether said first and second values are identical (col 3, lines 44-54).

      d. An execution module for executing each access request at the peripheral device, if the first and second values are identical (col 6, lines 55-65).

Vaughan does not disclose the peripheral resource being a shared resource nor the system being a multinode system. However, Frey discloses a peripheral resource being a shared resource and a multinode system (col 7, line 49-col 8, line10). One of ordinary skill would be motivated to combine Vaughan and Frey's teachings for the same reasons as claim 1.

**Claim 15:**

Vaughan and Frey disclose all the limitations of claim 14. In addition, Vaughan disclose the storage a computer usable medium, wherein said storage medium includes a submodule configured to generate said first value using information relating to a first time when the multinode system was in said first configuration (col 3, lines 44-54 and col 6, lines 33-44), and further comprising a module configured to generate said second value using information relating to a second time when the multinode system was in said second configuration (col 3, lines 44-54 and col 6, lines 33-44).

Claim 16:

Vaughan and Frey disclose all the limitations of claim 15. In addition, Vaughan discloses the comparator module configured to determine whether said first and second times are identical (col 6, lines 55-66).

Claims 4-6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Vaughan (U.S. 4,800,590) in view of Frey et al (U.S. 5,416,921) and Mann et al

"An algorithm for Data Replication".

**Claim 4:**

Vaughan and Frey disclose all the limitations of claim 1. Further, Vaughan

discloses said first and second generated values (col 3, lines 44-54). Neither Vaughan

nor Frey discloses values generated based at least in part on epoch numbers generated

by a membership protocol executing on a multinode system. However, Mann discloses

values generated based at least in part on epoch numbers generated by a membership

protocol executing on a multinode system (page 12, paragraph 3-page 13, paragraph

1). One of ordinary skill would be motivated to combine Mann's teachings into the

combination system of Vaughan and Frey as it would allow for replicating stored data on

multiple server machines (Mann's abstract).

**Claims 5 and 6:**

Vaughan, Frey, and Mann disclose all the limitations of claim 4. Vaughan and

Frey disclose all the limitations of claim 1. Further, Vaughan discloses said first and

second generated values (col 3, lines 44-54). Neither Vaughan nor Frey disclose

values generated based at least in part on respective membership sets of said

multinode system generated by said membership protocol. However, Mann discloses

values generated based at least in part on respective membership sets of said

multinode system generated by said membership protocol (page 12, paragraph 3-page 13, paragraph 1). One of ordinary skill would be motivated to incorporate Mann's teachings into the combination system of Vaughan and Frey for the same reason as for claim 4.

**Claim 9:**

Vaughan and Frey disclose all the limitations of claim 7. Neither Vaughan nor Frey disclose said unique value is based at least in part upon an epoch number generated by a membership protocol module. However, Mann discloses said unique value is based at least in part upon an epoch number generated by a membership protocol module (page 12, paragraph 3-page 13, paragraph 1). One of ordinary skill would be motivated to incorporate Mann's teachings into the combination system of Vaughan and Frey for the same reason as for claim 4.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vaughan (U.S. 4,800,590) in view of Frey et al (U.S. 5,416,921) and Endicott et al (U.S. 5,404,525).

**Claim 23:**

Vaughan and Frey disclose all the limitations of claim 17. In addition, Vaughan discloses a configuration value module configured to generate a unique value based at least in part on a time value (col 3, lines 44-54). Vaughan does not disclose the configuration value module including a submodule nor does Vaughan disclose the

unique value based at least in part upon a time stamp indicating the time at which the corresponding membership list was generated.

However, object-oriented programming was well known in the art at the time the applicant's invention was made as disclosed by Endicott (col 1, line 46-col 2, line 35). Further, Frey discloses the configuration value monitor configured to determine said unique value based at least in part upon a time stamp indicating the time at which the corresponding membership list was generated (col 12, last paragraph and col 20, line 60-col 21, line 15). One of ordinary skill would be motivated to combine the teachings of Vaughan and Frey for the same reasons as claim 1. One of ordinary skill would want to use a submodule (as taught by Endicott) in the system of Vaughan and Frey, as it would lead to better encapsulation and reusability of the program components (Endicott col 1, lines 60-65).

## *Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of
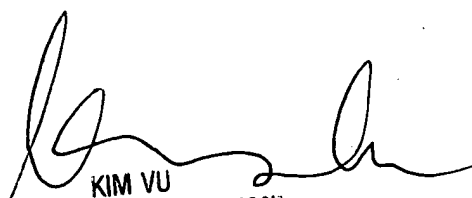
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ponnoreay Pich whose telephone number is 571-272-7962. The examiner can normally be reached on 8:00am-4:30pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PP

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